Audit Report

PROCEDURES USED TO TEST THE
DOLLAR ACCURACY OF THE
DEFENSE LOGISTICS AGENCY INVENTORY

Report No. D-2000-138 June 1, 2000

Office of the Inspector General
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Acronyms

DFAS	Defense Finance and Accounting Service
DLA	Defense Logistics Agency
DSS	Distribution Standard System

INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202-2885

June 1, 2000

MEMORANDUM FOR DIRECTOR, DEFENSE LOGISTICS AGENCY

SUBJECT: Audit Report on Procedures Used to Test the Dollar Accuracy of the Defense Logistics Agency Inventory (Report No. D-2000-138)

We are providing this report for review and comment. We performed this audit in support of the requirements of the Chief Financial Officers Act of 1990, as amended by the Federal Financial Management Act of 1994.

Comments on the draft of this report conformed to the requirements of DoD Directive 7650.3 and left no unresolved issues. Therefore, no additional comments are required.

We appreciate the courtesies extended to the audit staff. For additional information on this report, please contact Mr. James L. Kornides at (614) 751-1400, extension 11 (jkornides@dodig.osd.mil). Appendix D lists the report distribution. The audit team members are listed on the inside back cover.

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Report No. D-2000-138 **June 1, 2000**
(Project No. D2000FJ-0067.001)
(formerly Project No. 0FJ-2102.01)

Procedures Used to Test the Dollar Accuracy of the Defense Logistics Agency Inventory

Executive Summary

Introduction. Management and distribution of inventories are the major logistics functions performed by the Defense Logistics Agency (DLA). At the end of FY 1999, DLA stored about $7.8 billion (unadjusted) of consumable spare parts, food, clothing and textiles, and medical supplies at 18 of its distribution depots. Accurate inventory records are essential to achieving DoD goals for operational readiness, total asset visibility, financial and budget credibility, and operating efficiencies.

DLA relies on statistical sampling techniques to measure the accuracy of the depot perpetual inventory records because performing annual, 100 percent wall-to-wall inventory counts at all depots is not practical or cost-effective. Information from the depot records is provided to other DLA logistics systems, which are then used to prepare the financial statements. To obtain useful and reliable information from a statistical sample, the sampling techniques must be statistically valid, must be properly applied, and must produce results within acceptable levels of confidence and precision. In addition, a high degree of control must be established over the universe identification and stratification, sample selection, physical count, and summary procedures.

Objectives. The objective of the audit was to determine whether the sampling plan used to measure the dollar value accuracy of DLA-owned materiel stored at 18 distribution depots was statistically valid, was properly designed and executed, and could be relied on to achieve its intended purposes. We also evaluated applicable management controls. See Appendix A for a discussion of the scope and methodology and the management control program.

Results. DLA made significant progress during FY 1999 to develop a plan and execute valid statistical sampling techniques and other procedures needed to measure the dollar value accuracy of inventories stored at 18 of its 24 distribution depots. Although construction and execution of the sampling plan was a good first step toward producing reliable inventory information, the sampling plan was missing some essential procedures to ensure that the plan covered the complete universe of DLA-owned inventories stored at the 18 depots. Further, the sampling plan was not fully reliable or efficient because it was completed too far from year-end, did not document and provide for oversight of the sample selection process, used less than a 95-percent confidence

level, and inefficiently stratified the universe and estimated errors. The plan also did not test the accuracy of the unit price data in the logistics feeder systems. As a result of the design weaknesses in the plan, the FY 1999 sample results were not reliable for their intended purpose. Additionally, because the sampling plan did not cover about 30 percent of total DLA inventories, DLA could not use the sample results to assess the dollar value of the inventory balance reported on the financial statements (finding A).

Previous audits that the General Accounting Office and the Inspector General, DoD, conducted since FY 1996 reported problems with the accuracy of the depot perpetual inventory records and procedures for verifying the accuracy of the records. Based on our analysis of about 88 percent of the sample dollars, we concluded that the problems continued to occur during FY 1999. In addition, DLA did not adequately document its procedures to collect and summarize sample results. We did not obtain sufficient evidence to support the results that DLA reported for about 12 percent of the sample value, and the control weaknesses at the depots raised questions about the integrity of the counts that we did not observe (finding B).

Summary of Recommendations. We recommend that the Director, DLA, include all DLA-owned items stored at the depots in the sample universe and exclude all Military-Department-owned items. We recommend that the Director include procedures in future sampling plans to draw the sample universe from the same records that are used to prepare the financial statements, include procedures to test unit prices, and include procedures to cover DLA-owned inventories stored outside the depots. We recommend that the Director stratify the universe on September 30 and complete physical counts as close to year-end as possible, use a 95-percent confidence level, and use the results of the FY 1999 sampling plans to improve the sampling structure of future plans. We also recommend that the Director fully document the procedures for conducting physical inventory counts and procedures for summarizing the results of the counts and require that independent personnel observe and monitor the procedures.

Management Comments. The Comptroller, Defense Logistics Agency, concurred or partially concurred with the recommendations. The Comptroller stated that DLA will revise its sampling methodology and corresponding sampling plan to include all DLA-owned items, draw the sample universe from the same records as those used to prepare the financial statements, and improve the confidence and precision levels of the sample. DLA also completed actions to improve inventory counting procedures and planned actions to validate the condition of the items sampled and ensure all the sample items are counted. The planned actions were responsive. Management comments are discussed in the Findings section of this report, and the complete text of management comments is in the Management Comments section.

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Background

This report is the second in a series of reports on the amounts of inventories reported on the DoD financial statements. Inventories and inventory-related transactions represent major portions of the total assets, obligations, revenue, and expenses reported on the Defense Logistics Agency (DLA) financial statements. At the end of FY 1999, total DLA inventories consisted of about $9.4 billion (after valuation adjustments) worth of consumable spare parts, food, clothing and textiles, and medical supplies that the Military Departments and Defense agencies use to sustain operations. DLA stored about $7.8 billion (unadjusted) of the inventories at 18 of the 24 distribution depots that it manages.

To help manage distribution operations, DLA implemented the Distribution Standard System (DSS). DSS has perpetual inventory records that keep a continuous record for each item stored at the depots. The Defense Finance and Accounting Service (DFAS) relies on the information in DSS to prepare the DLA financial statements. DLA is responsible for ensuring that information in DSS is complete, accurate, and reliable and that DFAS uses valid information to prepare the financial statements.

Accurate DSS inventory records are essential to achieving DoD goals for operational readiness, total asset visibility, financial and budget credibility, and operating efficiencies. Accurate records can also help DLA to demonstrate that essential management controls are in place to safeguard DoD inventories stored at the depots. DLA relies on statistical sampling techniques to measure the accuracy of the depot records because DLA determined that performing annual, 100 percent wall-to-wall inventory counts at all depots is not practical or cost-effective.

To obtain useful and reliable information from a statistical sample, the sampling techniques used must be statistically valid, must be properly applied, and must produce results within defined sampling criteria. In addition, a high degree of control must be established over the universe identification and stratification, sample selection, physical count, and summary processes.

In past years, DLA developed statistical sampling plans that attempted to measure record accuracy. DLA developed sampling plans with the idea that accurate information regarding the quantity of inventories, not their cost, would provide the crucial information that DLA needed to measure depot performance against DLA strategic goals for materiel distribution. DLA focused its physical-inventory-count procedures on the number of units in the inventory, in an attempt to get an accurate assessment about the quantity on hand. However, the continued emphasis on producing accurate information to support the cost of inventories reported in the DoD financial statements caused DLA to devise a new statistical sampling plan to focus on the dollar accuracy of the depot records for DLA-owned materiel.

During FY 1999, DLA developed a new statistical sampling plan for testing the accuracy of the portion of its inventory that was stored at 18 distribution depots. The plan differed from other sampling plans that DLA used because it was designed to select only DLA-owned items stored at the depots and allow for items with high dollar values to have a greater chance of being selected for physical count. DLA fielded that sampling plan in June 1999, and the 11 DLA depots (13 sites) involved in the execution of the sample completed the sample counts during August and September 1999 (See Appendix B for additional details about the FY 1999 sampling plan).

Objectives

The overall objective of the audit was to evaluate management assertions pertaining to valuation, completeness, and existence of DoD inventory accounts and to determine whether the accounts were presented fairly on the financial statements. The objective of this part of the audit was to determine whether the sampling plan used to measure the dollar value accuracy of DLA-owned materiel stored at 18 distribution depots was statistically valid, was properly designed and executed, and could be relied on to achieve its intended purposes. We also evaluated applicable management controls. See Appendix A for a discussion of the scope and methodology and the management control program.

A. Adequacy of the Design of the FY 1999 Sampling Plan

DLA made significant progress during FY 1999 to develop a plan and execute valid statistical sampling techniques and other procedures needed to measure the dollar value accuracy of inventories stored at 18 of its 24 distribution depots. Although construction and execution of the sampling plan was a good first step toward producing reliable inventory information, the sampling plan was missing some essential procedures to ensure that the plan covered the complete universe of DLA-owned inventories stored at the 18 depots. Specifically, the sample universe:

- did not include about $54 million of subsistence items stored at the depots because DLA did not obtain the appropriate data files from the Defense Integrated Subsistence Management System,
- included approximately $1.3 billion of Military-Department-owned materiel stored at the 18 depots because DLA did not use the ownership purpose codes in the Standard Automated Materiel Management System, and
- did not reconcile with the information that DFAS used to prepare the financial statements.

Further, the sampling plan was not fully reliable or efficient because it was completed too far from year-end, did not document and provide for oversight of the sample selection process, used less than a 95-percent confidence level, and inefficiently stratified the universe and estimated errors. The plan also did not test the accuracy of the unit price data in the logistics feeder systems. As a result of the design weaknesses in the plan, the FY 1999 sample results were not reliable for their intended purpose. Additionally, because the sampling plan did not cover about 30 percent of total DLA inventories, DLA could not use the sample results to assess the dollar value of the inventory balance reported on the financial statements.

Progress Made During FY 1999

The sampling plan and related statistical techniques and other procedures that DLA implemented in FY 1999 represented a significant improvement over the sampling methods used previously to measure the accuracy of the distribution depot inventory records. Efforts to develop a reliable statistical sampling plan covering the DLA-owned portion of materiel stored at the distribution depots represents a significant first step toward establishing the controls and procedures needed to produce reliable financial statements.

Prior Year Sampling Plans. Before FY 1999, DLA designed sampling plans that attempted to measure the record accuracy rate[1] by distribution depot. The sampling plans for determining record accuracy rates, however, did not provide the information needed to measure the dollar value accuracy[2] of the DLA-owned materiel stored at the depots because the sampling techniques were not designed for that purpose. Previous sampling plans focused on measuring the accuracy of the number of items stored at a particular distribution depot and did not adequately consider the items' dollar values and owners. As a result, the previous plans did not adequately reduce the risk of material misstatement to the DLA financial statements by selecting an appropriate mix of DLA-owned items and items with high unit prices and high extended values. The previous plans showed that the distribution depot inventory records had a relatively large number of quantity errors, but they did not show the effect that those quantity errors had in terms of dollars. Also, the timing of the previous plans was not geared toward providing a statistical estimate of the accuracy of the year-end inventory balance.

FY 1999 Sampling Plan. During FY 1999, DLA established a statistically based inventory sampling process to measure the dollar value accuracy of the inventory records for DLA-owned materiel maintained at 18 of its 24 distribution depots. DLA developed the revised plan in an attempt to overcome the deficiencies reported in prior audit reports and to help validate the dollar value accuracy of the portion of its inventory stored at the 18 distribution depots. In designing the plan, DLA consulted with personnel from the Office of the Inspector General, DoD, and the General Accounting Office. DLA attempted to develop a sampling plan that, while retaining its statistical validity, would allow the depots to complete the physical counts cost-effectively. The sampling plan is discussed in more detail in Appendix B.

Subsistence Items Stored at the Depots

The universe that DLA tested in the FY 1999 sampling plan excluded about $54 million of subsistence (food) items stored at 6 of the 18 depots. The DLA-owned materiel stored at the 18 depots included spare and repair parts and other items classified into construction, electronics, industrial, general, clothing and textile, and subsistence commodity groups. DLA kept pricing data in the Standard Automated Materiel Management System for all items, except for materiel in the subsistence commodity group. DLA kept pricing and other information about subsistence items in the Defense Integrated Subsistence Management System. The sample inadvertently excluded the subsistence items because DLA did not obtain the appropriate data files from the Defense

[1] The record accuracy rate is the percentage of items counted, regardless of owner, without a variance. For example, a sampling plan designed to measure the record accuracy rate would count an error of $1 the same as an error of $50,000.

[2] Dollar value sampling attempts to measure the dollar value accuracy of inventories reported on the financial statements at year-end.

Integrated Subsistence Management System when it collected the universe data to conduct the sample. Exclusion of DLA-owned materiel from the sample universe further limited the usefulness of the reported results. Future plans must include all DLA-owned materiel stored at the depots, including subsistence items.

Military-Department-Owned Materiel

The universe that DLA tested in FY 1999 inappropriately included approximately $1.3 billion of Military-Department-owned materiel. To achieve the sampling objectives, DLA established procedures to distinguish DLA-owned materiel from Military-Department-owned materiel stored at the 18 depots.[3] However, the procedures were not fully effective in compiling a complete and accurate universe of only the DLA-owned portion of materiel stored at the depots.

The count observations that we performed showed that some of the items included in the sample, such as chemical suits and medical kits, were not owned by DLA. Further research during the audit showed that the items were included in the sample universe because DLA inadvertently included about $1.3 billion of Military-Department-owned assets, which overstated the sample universe by about 17 percent overall. DLA overstated the sample universe because the information DLA collected from DSS for sample purposes did not distinguish DLA-owned assets from Military-Department-owned assets when DLA-managed items stored at the depots had materiel that one of the Military Departments owned. In addition, DLA did not use the ownership purpose codes in the Standard Automated Materiel Management System to make sure that the universe included only DLA-owned materiel. As a result, commingled stock was included in the sample universe and treated as if it were all owned by DLA.

We could not determine the impact that the overstated universe had on the sample results because the size of the universe influenced both the site and item-selection processes. For example, the first stage of the sample was influenced by the dollar value of DLA-owned materiel stored at the depots. Although the DLA universe was overstated by about 17 percent overall, the overstatement varied from less than 1 percent to more than 700 percent by depot. The Defense Depot San Diego, California, the universe of which was overstated the most, was selected three times during the first stage of the sample selection process. Had only DLA-owned items been included in the universe, the selection of the San Diego depot three times would have been much more

[3] DLA-owned materiel accounted for about 65 percent of the items and 13 percent of the total value of inventories stored at the 18 depots as of September 30, 1999. The reason that the DLA-owned inventories represented a high percentage of items but a relatively low percentage of total dollars is because the types of consumable items (such as clothing, bolts, and medical supplies) that DLA manages generally cost much less than types of reparable items (such as navigational computers, landing gear, and hydraulic pumps) that the Military Departments managed.

unlikely. Future DLA sampling plans must exclude all Military-Department-owned materiel from the sample universe and ensure that only DLA-owned assets are included without regard to who has management responsibility over the materiel.

Consistency With Financial Statement Data

The FY 1999 sampling plan did not include procedures to reconcile the universe that DLA tested through statistical sampling techniques with the information that DFAS used to prepare the financial statements. To further test the validity of the universe data that DLA tested in FY 1999, we used analytical procedures to compare the data with the on-hand inventory amounts in the financial records that DFAS used to prepare the FY 1999 DLA financial statements. Because a primary objective of using statistical sampling techniques to measure the accuracy of the DSS records is to validate information in the financial statements, the sample universe tested must come from the same records as are used to prepare the financial statements. Consistency between the universe data tested and the records that DFAS uses to prepare the financial statements would allow for the statistical estimate derived from the sampling plan to be applied to the portion of the financial statements that the universe represents. After adjusting the universe for the improper inclusion of Military-Department-owned materiel and the exclusion of subsistence items, our analysis still showed a discrepancy of about $269 million between the two sets of records. DLA did not detect the discrepancy because it did not have procedures to reconcile the two sources of information.

Future DLA sampling plans must draw the sample universe from the same year-end financial records that DFAS uses to prepare the financial statements. The plan must also include reconciliation procedures to ensure that the two sets of data (including item quantities, conditions, and owners) are the same and that the interface between DSS and other DLA logistics systems works correctly.

Reliability and Efficiency of the FY 1999 Plan

Completing the sample too far from year-end, not documenting and providing for oversight of the sample selection process, using less than a 95-percent confidence level, and inefficiently stratifying the universe and estimating expected error rates further degraded the reliability and efficiency of the sample results and increased audit risk.

Timing of the Sampling Plan. DLA took positive steps to design the FY 1999 sampling plan so that it would be completed close to year-end. DLA used June 30, 1999, data in the sample selection process and to assign items to a particular stratum. Depot personnel completed the physical counts between August 2, 1999, and September 30, 1999. DLA used the assigned strata as of

June 30 and observed variances as of the dates that they completed the counts to estimate the dollar value accuracy of the universe tested on September 30, 1999. In doing so, DLA assumed that the stratification of the universe and observed variances during the interim period adequately reflected the characteristics of the universe on September 30.

In designing its sampling plan, DLA considered the trade-off between completing the sample as close to year-end as possible and still making sure that the plan could be implemented cost-effectively. The longer the interval to complete the sample, however, the more likely it becomes that items will no longer belong to the stratum that they were originally assigned. A long interval also increases the audit risk that the quantity variances observed before year-end no longer reflect the variances that would have been observed had all counts been completed on the last day of the fiscal year. Factors such as unrecorded receipts, issues, and movement of materiel that occur during the interim period could cause the observed variance to no longer be valid at year-end. Although completion of the sampling plan before year-end did not invalidate the FY 1999 sample results, the sampling plan did not include the necessary year-end procedures to validate the DLA assumptions about the stratification of the universe and observed variances during the interim period. As a result, the sample results had an increased risk of not accurately representing the universe tested.

Although it may be possible to design a sampling plan requiring that all sample items be selected and all physical counts be completed on the last day of the fiscal year, DLA determined that such a plan would not be feasible because it would not be cost-effective to implement. The risk introduced from conducting a sample over a period of time (interim period) cannot be fully quantified, but DLA can reduce the risk to a reasonable level by shortening the interim period as much as possible. Auditors can further reduce risk by performing additional year-end testing procedures. The type of testing required is called roll-forward procedures (when counts are completed or the universe is stratified before year-end) and roll-back procedures (when counts are completed after year-end).

We believe that future sampling plans could and should be implemented over less time than the 3-month period used in FY 1999. In our opinion, the best course of action for DLA to take in future sampling plans is to select and stratify the depot universe as of September 30 of the year under review and complete all sample counts in as short of period as feasible after that. The sampling plan must also include relevant roll-back procedures to cover the interim period from year-end to the date of the last count.

Oversight of the Random Selection Process. One of the most critical parts of a statistical sampling plan is the use of a random selection process. Randomizing the selection process eliminates personal bias and subjective considerations from the process. Randomizing also provides greater assurance that the selected sample represents the underlying universe from which it was drawn. Mistakes or bias introduced during the selection process can distort or even invalidate an entire sample.

DLA personnel told us that they used a random selection process to select depots and provided documentation showing the results of the selection process. They also told us that they used a random selection process to select the 3,177 items from the 13 sample sites. However, DLA did not adequately document the selection procedures that it used, and it completed the selection procedures without independent oversight. Therefore, we were unable to validate that the selection process was done without bias or subjective consideration. In the future, DLA should document its random selection process and have an independent party observe and monitor the process.

Precision and Confidence Levels. The two major parameters that describe the scope of a statistical sample are precision and confidence levels. To evaluate the reasonableness of the DoD criteria established in DoD Regulation 7000.14-R as they pertain to assessing DLA-owned inventories stored at the depots, we researched pertinent General Accounting Office policies. The policies are relevant to the DLA sampling objectives because the General Accounting Office plays a key role in establishing policies that affect both financial accounting and auditing in the Federal Government.

Precision Level. Precision is a way of expressing the tolerable level of error as a percentage of the sample estimate. For example, if the dollar estimate of the inventory records (universe) was $10 billion with a precision level of 3 percent, DLA would have a degree of mathematical assurance that the true value of the inventories was somewhere between $9.7 billion and $10.3 billion. Tolerable error is related to materiality, or the amount of misstatement above which would cause a user of the financial statements to not be able to rely on the reported information. Tolerable error is subjective and depends on various factors such as risk and the level of control established by the depots. The General Accounting Office established an acceptable error rate ranging from 1 to 3 percent. The 3-percent rate represents the maximum acceptable amount that a financial statement can be misstated before auditors would have to modify their audit opinion. DoD Regulation 7000.14-R, "DoD Financial Management Regulation," Volume 11B, Chapter 55, December 1994, establishes a precision level (materiality range) of 2.5 percent, which is within the range set by the General Accounting Office. As long as the other assets on the balance sheet (including the portion of inventories not covered by the sampling plan and the reported value of the inventories) are misstated by less than 2.5 percent, sample results should be acceptable for audit purposes.

Confidence Level. In following DoD policy, DLA used less than a 95-percent confidence level. Confidence level expresses the degree of mathematical assurance that the true inventory value falls within the range estimated by the sample projection (projected inventory value plus or minus the established precision level). In other words, confidence level expresses the degree of risk that the sample results do not actually correspond to the universe from which it was drawn and that the true value of inventories falls outside the estimated range. For example, using the previous example, DLA could say that with 90-percent confidence its inventory was valued at between $9.7 billion and $10.3 billion. However, it also indicates a 10-percent chance that the true inventory value actually falls outside that estimated range.

The required level of confidence depends on the degree to which DLA relies on sample results to validate its inventory records and to demonstrate that management controls are in place and operating effectively. Generally, if an organization relies heavily on sampling results to measure key areas of mission performance, has weak management controls, or both, that organization should have a minimum confidence level of 95 percent.

DLA relies heavily on the results of statistical sampling to measure how well it performs critical parts of its combat logistics support mission. For example, DLA relies on statistical sampling to measure depot performance, to demonstrate that acceptable controls have been established over materiel in its custody, and to improve the effectiveness of depot operations. Additionally, auditors must be able to rely on the sample results because they represent the only objective information available to validate the integrity of the distribution depot inventory records (DLA does not perform 100 percent inventories counts). Prior audits and DLA disclosures showed that DLA had not yet been able to adequately demonstrate that it achieved an acceptable level of control over its inventories and inventory systems.

Because of the high reliance that DLA and auditors place on effective sampling techniques and the inability of DLA to demonstrate that it has achieved an adequate level of control over its inventories, DLA must use a 95-percent confidence level in designing future sampling plans.

Improving Item Stratification and Estimates of Expected Errors. Designing a highly reliable and efficient sampling plan to assess a large, diverse, and dynamic universe[4] such as inventories stored at the distribution depots is very difficult to accomplish the first time it is attempted and will require several iterations to achieve a reliable and efficient sample design. In other words, DLA should improve the design of each plan using information obtained from the previous year's plan to achieve an efficient plan after evaluating several iterations of plan design and results. Although DLA used statistical sampling techniques in the past, the prior year plans, for reasons discussed in this report, provided little useful information to design a highly reliable and efficient sampling plan during FY 1999.

Stratification of the Universe. DLA used a stratified sampling structure (separation of the universe into two or more categories) because stratification of a universe generally improves sampling efficiency and results in a smaller total sample size than a sample that is not stratified. A smaller sample size is possible because variability in the universe, not size of the universe, drives the sample size. DLA structured the universe into 7 categories, or strata, as defined in Appendix B.

[4] The universe of DLA-owned materiel stored at the 18 distribution depots consisted of about 2.4 million items, valued at about $7.8 billion and covering a wide spectrum of items classified into construction, electronics, industrial, general, clothing and textile, and subsistence commodity groups. The items varied greatly in terms of unit of issue, on-hand quantities, unit price, extended value, and type of physical storage.

DLA made reasonable assumptions with the limited information available about how best to structure the universe of DLA-owned materiel stored at the depots. However, our assessment of the 1999 sample results indicated that DLA could improve the sampling structure. An extremely large number of items stored at many different warehouse locations generally took much longer and were harder to count than items with small on-hand quantities but large unit prices. Those characteristics were not adequately captured in the strata for extended dollars. For example, physical counts of chemical suits at the Defense Depot Albany, Georgia, reflected a large number of errors in the inventory records. Including the errors in the computation of the error rate for the stratum that the chemical suits were assigned would have significantly altered the sample results, so DLA excluded them from the computation. Additionally, the stratum for measurable items included many types of items that were actually countable. DLA could improve its sample results if it refined the stratification structure of future samples to consider the number of items on-hand in addition to extended dollars and if it redefined its definition of measurable items.

Estimating Expected Error Rates. Determining the sample size within each stratum of a stratified sampling structure requires estimates of the expected error rate within each stratum. The estimates of error rates are combined to form an overall estimate of the error rate in the entire universe. Using the limited information available, DLA made reasonable estimates of expected error rates. However, because DLA had only limited information from prior samples (prior samples were structured differently) when it designed the FY 1999 sample, error rates had to be estimated and averaged. Future sampling plans should use results of the FY 1999 sample to estimate expected error rates within each stratum.

Inventory Price Validation Procedures

The sampling plan did not include procedures to validate the inventory pricing data in the logistics feeder systems. For inventory records to be accurate, they must contain complete and accurate information about each item's owner, location, condition, quantity, and price. Although not fully effective, the sampling plan included procedures to distinguish DLA-owned materiel from Military-Department-owned materiel (ownership issues) stored at the depots. The plan required depot personnel to physically count all sample items. Proper conduct of physical counts, including accurately reporting the results of each count, provides sufficient evidence to validate whether each sample item's location, condition, and quantity are correct in the inventory records at the time of the count (See finding B for issues on the depot count procedures). The FY 1999 plan did not, however, have procedures to validate the pricing data in the logistics feeder systems.

DFAS prepared the DLA financial statements using pricing data from the Standard Automated Materiel Management System and the Defense Integrated Subsistence Management System, which are two primary DLA logistics feeder systems. The DLA inventory control points are required to maintain the

contracts and other procurement information that support the pricing data in the logistics feeder systems. In designing the procedures used to execute the FY 1999 sampling plan, DLA assumed that all pricing data in the logistics feeder systems were correct. Accordingly, the plan did not include procedures to validate pricing data by tracing prices from the logistics feeder systems to the appropriate procurement records at the inventory control points. As a result, the projected sample results provided information only about the effect that quantity discrepancies in the depot records had on inventory accuracy. The sample results did not provide any information regarding the effect that erroneous pricing data in the logistics feeder systems had on the value of DLA-owned materiel stored at the depots.

No information was available from other DLA sources or prior audits for us to assess the accuracy of pricing data in the logistics feeder systems. Accordingly, we could not determine the overall effect, if any, that potential pricing errors had on the sample results.

Analysis of FY 1999 Sample Results

DLA used statistical sampling techniques to determine whether and by how much the records for DLA-owned materiel stored at the 18 depots were misstated as of September 30, 1999, because of quantity errors in DSS. However, because of the design weaknesses in the plan that were discussed previously in this report, the FY 1999 sample results were not reliable for that purpose.

DoD Regulation 7000.14-R requires that statistical sampling plans be designed to demonstrate that the inventory balances in the general ledger accounts are not misstated by more that 2.5 percent (precision) at a confidence level of 90 percent. Therefore, to validate the book value of the DSS records, the sample results must show that the estimated error rate plus or minus the achieved precision level is within the range of book value plus or minus 2.5 percent (DoD materiality range).

To achieve the sampling objectives, DLA attempted to collect information about the characteristics of DLA-owned assets stored at the 18 depots from various logistics feeder systems, selected a sample of 3,177 items from 11 depots (13 sites), performed physical counts, and summarized the results of the counts.

The information that DLA collected for sampling purposes indicated that the value of the universe tested was about $9.1 billion (including $1.3 billion of Military-Department-owned materiel). Our analysis of the sample results indicated that between 12.8 percent and 24.4 percent of the DSS records tested contained quantity variances, which exceeded the DLA goal of 5 percent. As indicated in the following figure, our analysis of the sample results showed that at a 90-percent confidence level, the true and unknown value of the records tested was about $9.0 billion plus or minus $94.5 million. In other words, the effect that the quantity variances in the DSS records had on total dollar value

was to overstate it by no more than about $178.3 million (about 2 percent). The mathematical estimate of error range that was determined by the sample, although indicating that the book value of the DSS records was overstated, was within the acceptable DoD materiality range of book value plus or minus 2.5 percent.

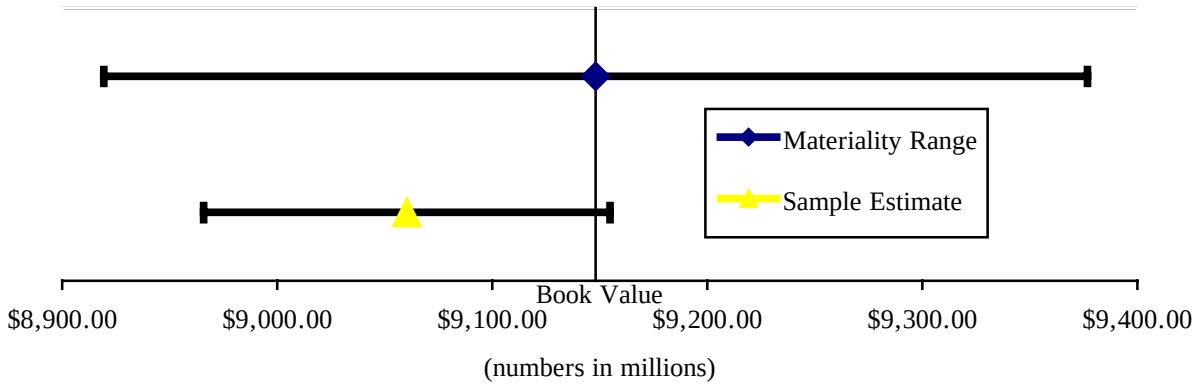

Figure 1. Comparision of Sample Estimate to DoD Materiality Range

Other DLA-Owned Inventories

The universe tested by the FY 1999 sampling plan did not include materiel and fuels stored at locations other than the 18 distribution depots and did not include procedures to test other inventory accounts such as in-transit materiel. Accordingly, DLA could not use the sample results to assess the dollar value of the inventory balance reported on its financial statements.

DLA stored its inventories (materiel and fuels) at 24 distribution depots and hundreds of other DoD and contract storage locations worldwide. DLA excluded 6 of the 24 depots from the sampling plan because the depots did not have DSS in place at the end of June 1999, the date when DLA compiled the sample universe. In addition, DLA excluded its materiel and fuels stored at hundreds of other storage locations worldwide, and it also excluded in-transit materiel because the information was not available through DSS. Collectively, the value of the DLA-owned materiel that was excluded from the FY 1999 sample universe represented about 30 percent of the total DLA inventories reported on the financial statements. DLA determined that it could not collect the necessary information about inventories that were not on the DSS records to design and conduct the sampling plan in FY 1999.

During the audit, we requested that DLA personnel provide us with additional information about the materiel stored outside the depots. We requested information such as site lists showing where the materiel was physically located, the rationale for storing materiel outside the depots, and the dates when the

storage organizations last performed physical inventories. The availability of that type of information is essential to validate that the financial statements contain complete and accurate information about the DLA inventories. DLA did not provide most of the requested information because it was not readily available. As a result, DLA could not validate the accuracy of the inventory records for materiel located outside of the 18 distribution depots that were included in the FY 1999 sampling plan.

The need for DLA to do additional work to get information about materiel located outside the depots could be reduced by consolidating, to the extent possible, materiel located at other DoD storage organizations into the depots. DLA must then either expand future sampling plans to cover the materiel and fuels stored at the other sites or develop alternative procedures to validate the accuracy of the inventory records.

Conclusion

We commend the DLA personnel involved in the FY 1999 sampling plan effort for taking the actions needed to begin addressing the deficiencies that we reported previously regarding the adequacy of the prior years' statistical sampling plans. Although the FY 1999 sampling plan produced inconclusive results, it demonstrated that DLA should be able to achieve a statistically reliable sampling plan for materiel stored at the depots by correcting the issues discussed in this report.

Development of a reliable sampling plan covering the DLA-owned materiel stored at the distribution depots represents a significant step toward establishing the controls and procedures needed to prepare reliable financial statements. However, before DLA can validate the inventory value reported in the financial statements, other issues must still be overcome. DLA still needs to demonstrate the following:

- pricing data in the logistics feeder systems are complete and accurate and reflect the historic cost of inventories;
- an adequate level of general and application controls has been established over DSS, the logistics systems, and the interface between systems;
- information in DSS about ownership, quantity, and condition of all DLA-owned items is fed properly to logistics feeder systems, and the DSS data are actually used to prepare the financial statement; and
- the portion of inventories that was not covered by the FY 1999 sampling plan is accurately reported in the financial statements.

Recommendations and Management Comments

A. In designing future sampling plans, we recommend that the Director, Defense Logistics Agency:

1. Include all Defense Logistics Agency-owned items stored at the depots in the sample universe and exclude Military-Department-owned items by:

a. Obtaining the appropriate data files from the Defense Integrated Subsistence Management System about subsistence items stored at the depots.

b. Including all Defense-Logistics-Agency-owned inventories.

c. Using the ownership purpose codes in the Standard Automated Materiel Management System to distinguish Defense Logistics Agency-owned assets from Military-Department-owned assets.

Management Comments. The Comptroller, DLA, concurred and stated that DLA is revising its sampling methodology and corresponding sampling plan to include the appropriate Defense Integrated Subsistence Management System files. DLA is combining items from the Standard Automated Materiel Management System and the Defense Integrated Subsistence Management System to select a sample of DSS warehoused inventory and will be using ownership purpose codes to distinguish DLA-owned assets from Military-Department-owned assets.

2. Develop procedures to draw the inventory information used for sampling purposes from the year-end information that the Defense Finance and Accounting Service uses to prepare the financial statements. Reconcile the two sets of records and develop other procedures to ensure that the interface between the Distribution Standard System and other Defense Logistics Agency logistics systems works correctly.

Management Comments. The Comptroller, DLA, concurred with the recommendation and stated that DLA is revising its sampling procedures to draw the universe of DLA-owned material used for the sample from the year-end information that is provided to DFAS in preparing the financial statements. DLA will review the Quantitative Location Reconciliation policy and the historical reconciliation results to determine what "out-of-cycle" quantitative location reconciliations are necessary and achievable to support the overall Chief Financial Officer sampling plan.

3. Perform the following actions:

a. Make the necessary arrangements to select and stratify the universe as of September 30 of the year under review and complete all sample counts in as short a period as feasible after that. Include the necessary year-end testing procedures to cover the interim period from year-end to the date of the last count.

b. Document the sample selection process and have an independent party observe and monitor the sample selection process.

c. Use a 95-percent confidence level and a precision level of plus or minus 2.5 percent.

d. Use the results of the FY 1999 and later samples to improve the design of future samples including refining the stratification of the Defense Logistics Agency universe and estimates of expected error rates in each stratum.

Management Comments. The Comptroller, DLA, concurred and stated that, as identified in response to Recommendation A.2., DLA is making the necessary arrangements to select and stratify the September 30 universe. The DLA distribution depots would perform and complete all sample counts in as short a period as feasible and rely on an independent third party for monitoring the process. DLA will document the sample selection process and have an independent party observe and monitor the actual selection process. The sampling plan will use a 95-percent confidence level and a precision level of plus or minus 2.5 percent. The design and efficiency of future sampling plans will use the results of previous samples.

4. Include procedures to validate pricing data by tracing prices from the logistics feeder systems to the appropriate procurement records.

Management Comments. The Comptroller, DLA, partially concurred and stated that the DLA FY 1999 sampling plan was not designed to and did not include procedures to test the accuracy of the pricing data in Standard Automated Materiel Management System. DLA will defer comments on planned actions to validate Standard Automated Materiel Management System pricing data until ongoing audit results covering the issue are completed and published.

5. Consolidate, to the extent possible, the materiel located outside the distribution depots into the depots.

Management Comments. The Comptroller, DLA, partially concurred and stated that the DLA will position its material in the depots to the extent possible. The need to support the warfighter requires storing material at non-DSS depot sites.

6. Expand the sampling procedures or develop other procedures to validate the accuracy of the inventory records for Defense Logistics Agency-owned materiel and fuels stored at storage organizations that do not use the Distribution Standard System.

Management Comments. The Comptroller, DLA, partially concurred with the recommendation and stated that controls are established by other organizations that store DLA-owned materiel. However, DLA will validate the existing inventory procedures at non-DSS sites to determine whether additional

procedures are necessary. The Comptroller also stated that DLA planned to use its ability to obtain 100-percent fuel inventories at all fuel sites at year-end and existing processes and controls to obtain year-end balances.

B. Physical Count and Summary Procedures

Previous audits that the General Accounting Office and the Inspector General, DoD, conducted since FY 1996 reported problems with the accuracy of the depot perpetual inventory records and procedures for verifying record accuracy. Based on our analysis of about 88 percent of the sample dollars (68 percent of the sample items), we concluded that the previously reported problems continued to occur during FY 1999. Problems continued to occur because DLA did not establish a sufficient level of control over the procedures that its distribution depots used to conduct physical inventory counts and to summarize the results of the counts. The control weaknesses at the depots occurred for the following reasons.

- Personnel at the depots who performed the counts could access DSS to determine the expected number of items on hand before verifying the on-hand quantities.
- Most depots used the same warehouse personnel that were primarily responsible for storing, rewarehousing, and issuing items being counted.
- DLA controls did not ensure that all items selected for physical count were actually counted and that the observed results were reported.

In addition, DLA did not adequately document its procedures to collect and summarize sample results. We were unable to obtain sufficient evidence to support the results that DLA reported for about 12 percent of the sample value, and the control weaknesses at the depots raised questions about the integrity of the counts that we did not observe.

DoD and DLA Physical Count Procedures

DoD Inventory Procedures. Confirming the validity of inventory records through physical count and inspection is the most effective way to verify the integrity of the underlying inventory records. Good count procedures generally require that personnel performing the physical counts be sufficiently independent from the day-to-day receipt, issue, and storage functions. Also, all sample items must be physically counted.

DoD Regulation 4140.1-R, the "DoD Materiel Management Regulation," May 20, 1998, and DoD Manual 4000.25-2, "Materiel Standard Transaction Reporting and Accounting Procedures," August 1996, establish DoD policies for inventory management records and for devoting the resources

necessary to complete the required inventories. The regulations also require annual random statistical samples to support the accuracy of logistics and financial records.

In general, the physical count procedures that DLA developed for the FY 1999 sample required the depot personnel to physically count and verify the on-hand quantity for the 3,153 individual sample items (4,255 warehouse locations)[5] and enter the information into DSS immediately after they completed the counts. If DSS detected quantity variances between the recorded balances and the results of the counts, it generated notices to the depots to validate the variances with second counts. If second counts did not match first counts or the variances detected were unusually large, depot personnel generally performed third counts. Depot personnel then reported their final count results into DSS, which summarized the counts at multiple locations at the item level, and DSS provided the summary information that DLA used for projection purposes.

Audit Requirements. Observation of inventories is a generally accepted auditing procedure. Auditing standards require that auditors observe physical inventory counts and be satisfied that all counts were completed and the results correctly summarized. When the client checks its perpetual inventories periodically by comparisons with physical counts, the auditor's observations can be performed either during or after the end of the period under audit. The audit standards do not specify the precise number or percentage of physical counts that must be observed because that is a matter of auditor judgement, which is based on prior audit experience and the auditor's assessment of the level of controls established by the audit client.

Previously Disclosed Control Weaknesses

The essence of statistical sampling as it relates to estimating the dollar value accuracy of an entire universe is to select, by some random (or chance) process, a relatively small number of items and gather information about them. If the sampling plan is designed and executed properly, information gathered about the sample items can provide a very reliable estimate of the dollar accuracy across the spectrum of all items in the sample universe. Reliable sample results require strong controls to ensure a high degree of certainty that depot personnel inspect and count all sample items properly and record their results into DSS accurately and in a timely manner.

Previous audits that the General Accounting Office and the Inspector General, DoD, conducted since FY 1996 reported problems with the accuracy of the depot perpetual inventory records and procedures for verifying record accuracy.

[5] The sample actually included 3,177 items. However, DLA selected 24 items multiple times, leaving 3,153 individual items to be physically counted. The depots stored 637 of the 3,153 sample items at multiple storage locations, ranging from 2 to 18 separate locations for a particular item. Consequently, to validate the sample, depot personnel had to physically count 4,255 separate storage locations.

Issues of verifying inventory accuracy using statistical sampling are addressed in finding A. The major issues of inventory count and summary procedures are discussed as follows.

Access to DSS Records. Personnel at the depots who performed the counts could access DSS to determine the expected number of items on hand before verifying the on-hand quantities. That weakness was magnified by the fact that DLA put a premium on processing inventories quickly and reporting high levels of record accuracy for performance purposes, which increased the possibility that depot personnel would not actually count all sample items.

Incompatible Functions. Most depots used the same warehouse personnel that were primarily responsible for storing, rewarehousing, and issuing items being counted. Segregation of incompatible functions is an essential management control to safeguard assets because it ensures that a person is not put in a position to perpetrate and conceal errors or irregularities in the ordinary performance of that person's duties.

Completion of All Sample Counts. Established DLA controls did not ensure that all items selected for physical count were actually counted within established timeframes. The number of items selected by the FY 1999 sampling plan represented about one tenth of 1 percent of the total number and value of DLA-owned items stored at the 18 distribution depots. Because such a small number of inventory records are actually validated through physical counts, the depot personnel must count all sample items and properly record their results.

In previous audits, the auditors concluded that weaknesses in the depot count and summary procedures raised questions about the integrity of the counts and reported accuracy rates.

Summary of FY 1999 Count Observations

We observed counts and monitored the summary processes that DLA used at the 11 depots (13 sites) selected by the FY 1999 sampling plan. As depicted in Figure 2, our observations covered about 68 percent of the sample items and about 88 percent of the sample dollars.

We concluded that the problems reported in the previous audit reports continued to occur during FY 1999. The problems continued because DLA did not establish a sufficient level of control over and document the procedures that its distribution depots used to conduct physical inventory counts and to summarize the results of the counts.

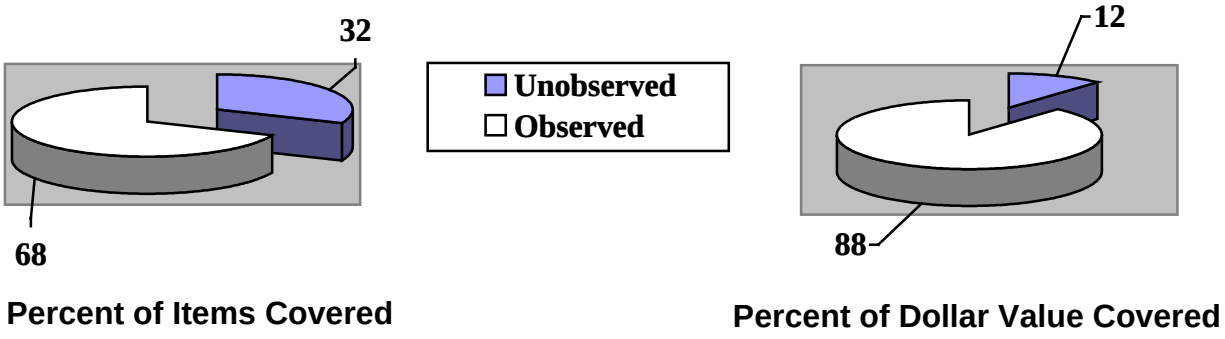

Figure 2. Counts Observed as a Percentage of Sample Items and Dollar Value

Documentation of Count and Summary Procedures

To execute the revised sampling plan during FY 1999, DLA issued some additional procedures to assist depot personnel. However, DLA did not adequately document in the sampling plan all relevant procedures for the inspection, count, and summary processes. As a result, depot personnel did not complete the essential procedures discussed as follows.

Conducting Physical Counts Without Auditor Observations. Some depot personnel started counting sample items before the auditors arrived at the site or made counts at locations where auditors were not present to observe them. For example, Defense Depot Oklahoma City, Oklahoma, completed 22 physical counts before the arrival of auditors at the site and recorded all 22 record balances as correct. However, when the auditors verified the accuracy of the reported results for the 22 items, 3 of the items actually had variances. For example, the DSS records indicated that the depot had 396 feet of a particular type of rubber seal (national stock number 5330-01-220-2350). Our observation of an actual measurement of the seal showed actually only 200 feet on hand and that depot personnel had not measured the rubber seal previously.

Validating the Condition of Sample Items. The DLA sampling plan did not adequately document the actions that depot personnel must take during the physical inventory process to validate that the condition of each sample item is properly reflected in the DSS record. DSS represents an item's physical condition by using the condition codes that DoD established. Errors in the condition codes recorded in DSS can potentially affect the reported value of the inventory because broken or otherwise unusable items should be valued at their potential scrap value rather than cost.

Validating In-Float Transactions for Sample Items. The DLA sampling plan did not adequately document the actions that depot personnel must take to validate in-float transactions for the selected sample items. An in-float situation

occurs when all or some portion of a selected sample item has a receipt, issue, or re-warehousing transaction that occurs on the date of the physical count. For example, during physical inventory observations at the Defense Depot San Diego, California, the DSS inventory record showed that an aircraft rib assembly, valued at $4,572, was stored at a DLA warehouse located on the North Island Naval Air Station. When the auditors visited the North Island facility, they found the location empty. That situation occurred because depot personnel had moved the item (they processed a re-warehousing transaction) to a warehouse located on the San Diego Naval Station. The auditors visited the new location at the San Diego Naval Station and found the item.

DoD Manual 4000.25-2 states that a storage activity may reduce the volume of in-float transactions during the time that the organization is performing physical counts by suspending some routine transactions, such as the issue of low priority items. However, it is not DoD policy for the distribution depots to stop processing all transactions during the period that the depots perform their physical inventory counts. Consequently, one or more selected sample items could be in an in-float situation on the date of the physical count.

Reporting Count Variances. Information that auditors collected about count variances during their count observations sometimes conflicted with the final results reported by the depots. In some cases, we could not substantiate the reasons for the changes[6] because depot personnel made changes based on unobserved second or third counts. In at least 25 instances, however, we were able to substantiate that the quantity variances reported by the depots were in error. The errors occurred mainly because depot personnel reversed previous inventory adjustments as a means to clear a current variance. For example, our observation of an inventory count of a ring assembly (national stock number 2840-00-066-9660) at Defense Depot San Diego, California, showed an on-hand balance of 28, which was 12 less than the DSS record balance of 40. Depot personnel reported no variance in their final sample results because they reversed a previously reported gain adjustment for the item that was posted to the record 8 months earlier.

Completing and Reporting Sample Results. The DLA procedures to collect and summarize the sample results did not ensure that the depots reported the results of physical counts for all the 3,153 sample items. When DLA initially collected the sample results, 111 sample items had no reported results. The Defense Distribution Center contacted the depots that had not reported results and obtained information for 70 of the missing items. At the time that DLA made its projection, it excluded 41 items from its sample estimate.

[6] In 25 instances, we were not able to substantiate the reasons for changes to variances observed by the auditors. We treated those items as unobserved items in our computation of sample items and sample dollars covered.

Inventory Count Integrity

During the audit, we observed and obtained the necessary documentation to substantiate the on-hand balances for 2,156 of the sample items. We were unable to obtain sufficient evidence to support the results that DLA reported for 997 of the sample items (about 12 percent of the sample value), and the reported error rate for those items was 4 percent lower than the observed inventory counts. The types of control weaknesses noted in this finding raised questions about the integrity of the 997 counts that we did not observe.

Effect on Sample Results

The presence of auditors during physical counts ensured that depot personnel actually made physical counts and correctly reported observed variances for 2,156 items. Additionally, our involvement in the summary process identified other errors such as incorrect computation of averages, missing sample items, incorrect variances reported, and duplicate items. Adjusting for the errors and increasing the confidence level from 90 percent to 95 percent slightly changed our adjusted sample estimate as depicted in Figure 3.

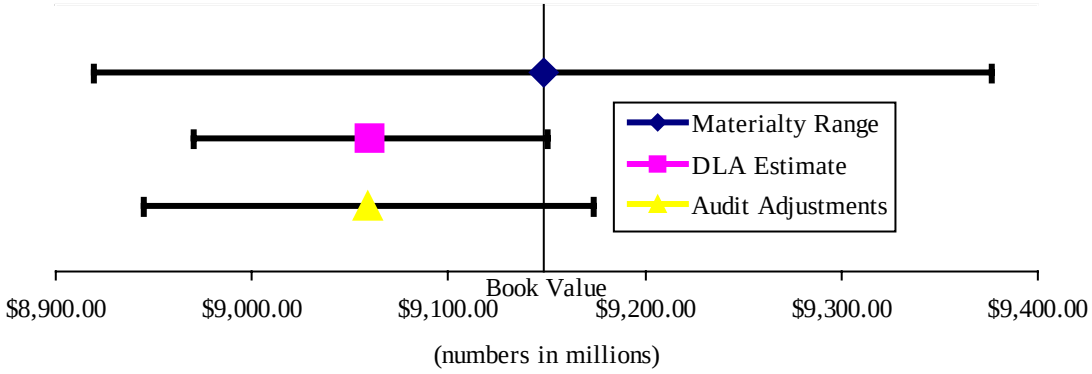

Figure 3. Comparison of DoD Materiality Range to Sample Estimates

The audit adjustments increased the error bound from $90.2 million to $114.4 million and decreased the book value point estimate by $1 million. However, the adjusted estimate still fell within the 2.5 percent materiality range.

Conclusion

Although problems with physical count and summary procedures continued to occur during FY 1999, DLA could overcome most problems that we observed

by creating an independent process to observe and monitor physical count and summary procedures. Independent personnel should observe inventory counts to make sure that depot personnel completed them and track the observed variances through the summary and projection process to make sure that the sample estimate is correct.

Recommendations and Management Comments

B. We recommend that the Director, Defense Logistics Agency:

1. Establish an oversight mechanism requiring that personnel, who are independent of depot operations, observe the physical counts for sample items and monitor the results through the sample projection.

Management Comments. The Comptroller, DLA, partially concurred and stated that DLA has already completed actions in response to a related General Accounting Office report that will ensure proper separation of duties in the counting process. The Comptroller further stated that DLA will also rely on its independent auditors to observe and monitor count procedures.

2. Fully document the sample count and summary procedures and include the documentation as part of the sampling plan. Specifically, the plan should adequately document the actions that depot personnel must take to:

a. conduct physical counts only with independent personnel present;

b. validate the condition codes in the Distribution Standard System;

c. validate in-float transactions;

d. report observed count variances before making adjustments for previously reported adjustments.

e. report the results of all sample counts and include them in the sample estimate.

Management Comments. The Comptroller, DLA, concurred and stated that DLA will use the auditors to observe counts. Additionally, DLA will verify condition codes using existing radio devices and take action if there are inconsistencies, reemphasize the importance of using the on-line re-warehousing tools available in DSS for in-float transactions, and

issue a policy reiterating guidance that it will not perform causative research during the pre-adjustment phase of a sample inventory. DLA will ensure that all sample items are accounted for in its FY 2000 sample.

Appendix A. Audit Process

Scope

We performed this audit as part of the requirements of Public Law 101-576, the "Chief Financial Officers Act of 1990," November 15, 1990, as amended by Public Law 103-356, the "Federal Financial Management Act of 1994," October 13, 1994. For this part of the audit, we limited the scope of our review to evaluating the procedures and controls that DLA had in place to ensure the dollar accuracy of the $7.8 billion of inventory it owned and stored at the 18 distribution depots included in its statistical sampling plan.

To evaluate the statistical validity of the statistical sampling plan, we obtained assistance from the Quantitative Methods Division, Office of the Assistant Inspector General for Auditing, DoD. The Quantitative Methods Division assisted us in reviewing the sample design and sample selection processes, assisted us in determining whether the sampling techniques were appropriate under the circumstances, and assisted us in evaluating the sample projections.

Work Performed. DLA relies on statistical sampling techniques to measure the accuracy of the depot records because DLA determined that performing annual, 100 percent wall-to-wall inventory counts at all depots was not practical or cost-effective. The Quantitative Methods Division reviewed the technical aspects of the DLA sampling plan, and we addressed all of the division's concerns in this audit report. We evaluated the sampling methodology that DLA developed, and we observed the related physical count and summary procedures that DLA used to determine whether the procedures would achieve the intended objectives of the sampling plan. Our audit included observing and validating the reported variances for 2,156 items, ensuring that results for all 3,153 items were reported, evaluating depot count and summary procedures, and checking the mathematical accuracy of the formulas used to project the sample results. We also used analytical procedures to compare the sample universe with the information provided to DFAS to prepare the financial statements.

Limitations to Audit Scope. The FY 1999 sampling plan was designed to test the accuracy of the DLA-owned portion of materiel stored at 18 distribution depots by determining the effect that quantity variances in DSS have on dollar value. Accordingly, the plan intentionally excluded about 30 percent of total DLA inventories reported on the DLA financial statements. Consequently, the audit results only pertain to the portion of inventories covered by the sampling plan and cannot be related to the inventory records for the other DLA-owned materiel and fuels. Additionally, the audit did not attempt to determine the impact that erroneous pricing data in the logistics feeder systems or other valuation problems might have on the sample results.

The sampling plan was based on the assumptions that stratifying the universe and performing physical counts before year-end produced essentially equivalent results to what would have been achieved if the stratification and counts were completed on September 30, 1999. The plan also assumed that DSS could effectively carry forward the inventory balances from the date of sample selection until year-end. The sampling plan did not include procedures and we did not perform detailed audit steps or systems reviews to validate those assumptions.

DoD-Wide Corporate-Level Government Performance and Results Act Goals. In response to the Government Performance and Results Act, the Secretary of Defense annually establishes DoD-wide corporate-level goals, subordinate performance goals, and performance measures. This report pertains to achievement of the following goal:

FY 2001 DoD Corporate-Level Goal 2: Prepare now for an uncertain future by pursuing a focused modernization effort that maintains U.S. qualitative superiority in key warfighting capabilities. Transform the force by exploiting the Revolution in Military Affairs, and reengineer the Department to achieve a 21st century infrastructure. **(01-DoD-2)**

- **FY 2001 Subordinate Performance Goal 2.5:** Improve DoD financial and information management. **(01-DoD-2.5)**
- **FY 2001 Performance Measure 2.5.1:** Reduce the number of noncompliant accounting and finance systems. (**01-DoD-2.5.1.)**
- **FY 2001 Performance Measure 2.5.2:** Achieve unqualified opinions on financial statements. **(01-DoD-2.5.2.)**

DoD Functional Area Reform Goals. Most major DoD functional areas have also established performance improvement reform objectives and goals. This report pertains to achievement of the following functional area objectives and goals.

> **Financial Management Functional Area. Objective:** Reengineer DoD business practices. **Goal:** Standardize, reduce, clarify, and reissue financial management policies. **(FM-4.1)**

General Accounting Office High-Risk Area. The General Accounting Office has identified several high-risk areas in DoD. This report provides coverage of the Financial Management and Inventory Management high-risk areas.

Methodology

The Quantitative Methods Division, Office of the Assistant Inspector General for Auditing, DoD, and the General Accounting Office assisted us in evaluating the statistical sampling techniques that DLA used in its FY 1999 sampling plan.

We based our conclusions about the adequacy of the DLA count, inspection, and summary procedures by observing the procedures that depot personnel performed on 2,156 items at the 13 inventory sites and by monitoring the summary process for all items. We compared our observations with the conditions reported in the previous audit reports.

Use of Computer-Processed Data. DLA used computer-processed data and automated data extraction and matching routines to identify the DLA-owned items stored at the depots and to revalue the inventory from standard price to latest acquisition cost. We did not test the general and application controls in DSS and did not make any conclusions about the reliability of the transactions posted to the DSS records before the dates that depot personnel performed the physical inventory counts. Our comparison of physical counts that we observed with DSS record balances validated the DSS records as of the date that physical counts were conducted. We also did not test the interface processes between DSS and the DLA logistics feeder systems that were used to prepare the financial statements. Accordingly, we were not sure that the DSS records that DLA validated through statistical sampling were the same records that DFAS used to prepare the financial statements.

Audit Type, Dates, and Standards. We performed this financial-related audit from July 1999 through February 2000. Our review was made in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD.

Contacts During the Audit. We visited or contacted individuals and organizations within DoD. Further details are available upon request.

Management Control Program

DoD Directive 5010.38, "Management Control (MC) Program," August 26, 1996, requires DoD organizations to implement a comprehensive system of management controls that provides reasonable assurance that programs are operating as intended and to evaluate the adequacy of those controls.

Scope of the Review of the Management Control Program. We reviewed the FY 1999 Annual Statement of Assurance issued by DoD and DLA to determine whether the issues addressed in this report had been reported as material management control weaknesses.

Adequacy of Management Controls. We identified material management control weaknesses, as defined by DoD Instruction 5010.40, "Management Control (MC) Program Procedures," August 28, 1996, related to the development and execution of the DLA sampling plan. The details of the management control weaknesses are provided in detail in the two findings in this report. The recommendations in this report, if implemented, will improve the adequacy of the design of future sampling plans and improve physical count and

summary procedures. A copy of this report will be provided to the senior official responsible for management controls in DLA.

Adequacy of Management's Self-Evaluation. The FY 1999 DLA Annual Statement of Assurance did not identify any material control weakness related to the design and execution of the FY 1999 sampling plan.

Prior Coverage

General Accounting Office

General Accounting Office Report No. 99-132 (OSD Case No. 1793), "Better Controls Essential to Improve the Reliability of DoD's Depot Inventory Records," June 28, 1999.

Inspector General

Inspector General, DoD, Report No. 99-089, "Internal Controls and Compliance With Laws and Regulations for the FY 1998 Financial Statements of the Defense Logistics Agency Working Capital Fund," March 1, 1999.

Inspector General, DoD, Report No. 99-080, "Status of the Defense Logistics Agency Plan to Measure Inventory Record Accuracy at the Distribution Depots Using Statistical Sampling," February 10, 1999.

Inspector General, DoD, Report No. 98-148, "Internal Controls and Compliance With Laws and Regulations for the FY 1997 Financial Statements of the Defense Logistics Agency Working Capital Fund," June 5, 1998.

Inspector General, DoD, Report No. 98-072, "Defense Business Operations Fund Inventory Record Accuracy," February 12, 1998.

Inspector General, DoD, Report No. 98-019, "Inventory Record Accuracy and Management Controls at the Defense Logistics Agency Distribution Depots," November 10, 1997.

Appendix B. Additional Information About the FY 1999 Sampling Plan

This appendix provides additional information about the FY 1999 sampling plan. It provides a general description of distribution depot operations, explains the objectives and scope of the plan, and provides other relevant information about the FY 1999 sampling plan.

DLA Distribution Depot Operations. At the end of FY 1999, DLA operated 24 distribution depots. DoD organizations buy large amounts of materiel and store it at the distribution depots until needed. The DLA distribution depots comprise the largest concentration of DoD materiel for which a single DoD entity, DLA, maintains the accountable records.

The depots receive newly procured items; make redistributions (move materiel between depots); receive items returned from field organizations; issue materiel to customers; and provide for the care, preservation, and quality control of items in storage. DLA maintains ownership of most consumable items, and the Military Departments own most reparable items. The DLA-owned materiel stored at the depots included spare and repair parts and other items classified into construction, electronics, industrial, general, clothing and textile, and subsistence (food) commodity groups.

Over the last several years, DLA implemented DSS at its distribution depots. DSS is a perpetual inventory system that maintains a continuous record about the location, quantity, and condition of each item stored. The DSS increases the on-hand inventory balances when stock is received, decreases inventory balances when stock is issued, and adjusts balances based on the results of physical inventory counts and materiel redistributions. Information in the DSS records updates the Standard Automated Materiel Management System and the Defense Integrated Subsistence Management System (logistics feeder systems), which are used to prepare the DLA financial statements. DLA relies on statistical sampling techniques to measure the accuracy of information in the DSS perpetual inventory records.

Objectives of the FY 1999 Sampling Plan. The objective of the FY 1999 sampling plan was to measure the dollar value accuracy, as of September 30, 1999, of the portion of DLA-owned inventories stored at the 18 distribution depots that used DSS. By excluding procedures to validate the unit price data in the logistics feeder systems, DLA designed the sampling plan to only measure the effect that quantity discrepancies in the DSS records had on the total dollar value of materiel stored at the 18 depots.

DLA personnel consulted with auditors and statisticians from the Office of Inspector General, DoD, and the General Accounting Office to design a sampling plan that was statistically valid, was cost-effective to implement, and would provide enough time to allow auditors to observe the inventory counts.

DLA determined that to meet those goals, the FY 1999 sampling plan should be executed over a period of 3 months from the date that items were categorized and selected and year-end.

By design, the sample universe excluded all Military-Department-owned materiel stored at the 24 depots and the DLA-owned portion of the materiel stored at 6 depots. The plan also intentionally excluded DLA-owned material and fuels stored outside the depots, in-transit material, and other types of inventories not recorded on the DSS records. The excluded materiel represented about 30 percent of total DLA inventories. At year-end, the depot records showed 2.4 million items, valued at about $10.1 billion (standard price), of DLA-owned materiel stored at the 18 depots.

Revaluation of the Universe. In designing the sampling plan, DLA attempted to relate the sample universe to the information used for financial statement purposes. Although DSS had standard pricing data for materiel stored at the depots, the pricing data exceeded the historic cost of the materiel because it included a surcharge for cost recovery purposes. The pricing data used to value the inventory in the financial statements is maintained by the DLA inventory control points in the Defense Integrated Subsistence Management System for subsistence items and in the Standard Automated Materiel Management System (logistics feeder systems) for all other items. To properly value the inventory, DLA obtained pricing data from the Standard Automated Materiel Management System and revalued the universe. The 2.4 million items were valued at about $7.8 billion at latest acquisition cost. As discussed in finding A, however, the $9.1 billion universe that DLA tested in FY 1999 inadvertently included about $1.3 billion of Military-Department-owned inventories. The sampling plan did not, however, include any tests to validate the accuracy of the information in the logistics feeder systems, and the plan assumed that the pricing data were accurate. Accordingly, any unit pricing errors that are in the logistics systems were not considered in the FY 1999 sampling plan.

Sample Criteria. DLA designed the FY 1999 sampling plan to achieve a confidence level of 90 percent and a precision of plus or minus 2.5 percent according to the criteria that DoD Regulation 7000.14-R established. This means that, at a 90-percent confidence level, the sample estimate plus or minus the achieved precision level must reside within the book value plus or minus 2.5 percent, which is the materiality range set by DoD.

Sampling Process. For sampling purposes, DLA considered the 18 depots included in the sample universe to have 20 separate sites. Although DLA considered Defense Depot San Joaquin, California, and Defense Depot Susquehanna, Pennsylvania, as single depots, each had two separate sites. Defense Depot San Joaquin, California, had sites located in Sharpe and Tracy, California. Defense Depot Susquehanna, Pennsylvania, had sites located in Mechanicsburg and New Cumberland, Pennsylvania. All four sites were treated as separate sites for sampling purposes. The composition of DLA-owned materiel stored at the 18 depots (20 sites) in the DLA universe for sampling is shown in the table in Appendix C.

DLA used a two-stage, stratified statistical sample to select its sample from the June 30, 1999, universe. The first stage was the selection of depots, and the second stage was the selection of items.

First Stage. For the first stage of the sample, DLA used probability proportional to size with replacement to select the 20 sites where depot personnel were to perform the physical counts. In other words, the chance of a site being selected was in direct proportion to the amount of DLA-owned materiel stored at that site as of June 30, 1999. After a site was selected, it was placed back in the pool for possible selection again. Accordingly, the selection method that DLA used in the first stage allowed for sites with a greater inventory value to have a greater likelihood of being selected and for any site to be selected more than once or not at all.

To perform the first stage of the sample, DLA collected information about all DLA-owned materiel stored at the 18 depots (20 sites) as of June 30, 1999. The DLA-owned portion of the materiel stored at the depots comprised about 65 percent of the items and about 13 percent of the total value of the inventories stored at the 18 depots. The value of the DLA-owned inventories was based on prices in the DLA logistics feeder systems. The depots selected in their order of selection are depicted in Table B-1.

Table B-1. Selected Depots

Distribution Depot	Order of Selection
Defense Depot Richmond, Virginia	1 and 5
Defense Depot Norfolk, Virginia	2 and 15
Defense Depot San Joaquin, California-Sharpe	3 and 12
Defense Depot San Diego, California	4, 16, and 18
Defense Depot Warner Robins, Georgia	6
Defense Depot Cherry Point, North Carolina	7
Defense Depot Susquehanna, Pennsylvania-Mechanicsburg	8
Defense Depot Red River, Texas	9
Defense Depot Susquehanna, Pennsylvania-New Cumberland	10, 11, 19
Defense Depot Barstow, California	13
Defense Depot Albany, Georgia	14
Defense Depot Oklahoma City, Oklahoma	17
Defense Depot San Joaquin, California-Tracy	20

Second Stage. In the second stage of the sample, DLA categorized the items stored at the 13 sites into 7 categories, or strata. The stratification categories that DLA used are depicted in Table B-2.

Table B-2. Stratification Categories of Stored Items

Strata	Type	Unit Price	Extended Value
1	Measurables	_____	_____
2	Countables	Greater than or equal to $0 and less than $500	less than or equal to $2,000
3	Countables	Greater than or equal to $0 and less than $500	greater than $2,000
4	Countables	Greater than or equal to $500 and less than $1,000	less than or equal to $10,000
5	Countables	Greater than or equal to $500 and less than $1,000	greater than $10,000
6	Countables	Greater than or equal to $1,000 and less than $50,000	_____
7	Countables	Greater than or equal to $50,000	_____

The unit of measure for the sampling plan was an item (the net total number of items at all individual storage locations) at a particular depot regardless of condition. All DLA-owned items stored at the 13 sites (excluding items transferred to the Defense Reutilization and Marketing Service) were included in the sample universe. Based on past experience, DLA determined that the minimum sample size should be 3,000 items or 150 items per site selected in the first stage of the sample.

The DLA-owned items stored at the 13 sites were allocated among the stratum using Neyman's Allocation. Neyman's Allocation is an efficient sample apportionment algorithm that allocates a larger portion of the sample to strata with large variances and a smaller portion to strata with small variances. A stratum's sample size at any given site was determined by the size of the stratum and its estimated variance (error rate). Because DLA had only limited information from prior samples when it designed the FY 1999 sample, error rates had to be estimated and averaged. DLA also established a requirement that at least five items be included from each stratum for each site selected in stage one of the sample.

DLA assigned all items in the June 30, 1999, universe to the appropriate stratum. To keep the sample statistically valid, DLA had to keep characteristics of the universe that were established as of June 30 constant. Items remained in the stratum that they were originally assigned regardless of what stratum they

would have been assigned had the universe been stratified again on September 30, 1999. Because DLA designed the sampling plan to provide an estimate of dollar accuracy at year-end balance, the plan assumed that the characteristics of each stratum did not change significantly during the interim period.

Sample Size. To achieve the sampling objectives, the DLA sampling plan required that depot personnel count 3,177 items. The sample size per site ranged from 153 items to 168 items. Because 24 of the sample items were selected more than once, the sampling plan required that depot personnel actually physically count 3,153 individual items. The depots stored 637 of the 3,153 items at multiple warehouse locations (ranging from 2 to 18 locations per item). Consequently, to validate the sample, depot personnel had to physically count 4,255 separate warehouse locations at the 13 sample sites selected in the first stage of the sample. Depot personnel began their counts on August 2, 1999, and finished them all during September 1999. Because all of the counts were not done on September 30, the plan assumed that variances observed before year-end remained valid for up to 2 months. The sampling plan did not include any roll-back procedures to cover the interim period from the count dates and June 30 (date of universe selection) or roll-forward procedures to cover the interim period from the universe selection and count dates to year-end.

Summary Process. Results for each of the 3,153 items were established through physical counts. DLA netted at the item level the observed variances for items with multiple locations so that each sample item had only one result. The reported results were that the DSS record was correct, the DSS record was overstated by the observed variance, or the DSS record was understated by the observed variance. For projection purposes, DLA used the observed variances at the dates of the counts and the characteristics of the universe as of June 30 to estimate dollar accuracy as of September 30. Consequently, the sampling plan had an assumption that variances observed up to about 2 months before year-end would have been the same as the variances that would have been observed had all items been counted on September 30.

Appendix C. Composition of Defense Logistics Agency-Owned Materiel Stored at the 24 Defense Depots

Distribution Depot	Included in the sample universe	Included in the DLA sample	Inventory Value
Defense Depot Albany, Georgia	Yes	Yes	$ 249,182,570
Defense Depot Anniston, Alabama	Yes	No	29,402,997
Defense Depot Barstow, California	Yes	Yes	233,031,527
Defense Depot Cherry Point, North Carolina	Yes	Yes	248,606,466
Defense Depot Columbus, Ohio	Yes	No	205,587,517
Defense Depot Corpus Christi, Texas	Yes	No	26,690,486
Defense Depot Europe	No	No	22,914,442
Defense Depot Hill, Utah	Yes	No	419,966,826
Defense Depot Jacksonville, Florida	Yes	No	259,645,210
Defense Depot McClellan, California	No	No	11,037,350
Defense Depot Norfolk, Virginia	Yes	Yes	513,988,474
Defense Depot Oklahoma City, Oklahoma	Yes	Yes	679,491,510
Defense Depot Pearl Harbor, Hawaii	No	No	10,325,791
Defense Distribution Depot Puget Sound, Washington	Yes	No	58,672,591
Defense Depot Red River, Texas	Yes	Yes	189,206,321
Defense Depot Richmond, Virginia	Yes	Yes	864,007,219
Defense Depot San Antonio, Texas	No	No	80,994,068
Defense Depot San Diego, California	Yes	Yes	38,849,424
Defense Depot San Joaquin, California [1]	Yes	Yes	1,907,301,327
Defense Depot Susquehanna, Pennsylvania [2]	Yes	Yes	1,459,107,446
Defense Depot Tobyhanna, Pennsylvania	Yes	No	434,157
Defense Depot Warner Robins, Georgia	Yes	Yes	424,170,547
Defense Depot Yokosuka, Japan	No	No	7,336,518
Defense Distribution Mapping Activity - Richmond, Virginia	No	No	666,400,000
Total			**$ 8,606,350,784[3]**

[1] San Joaquin is a depot with facilities in Sharpe ($1,070,059,307.63) and Tracy ($922,243,613.50).

[2] Susquehanna is a depot with facilities in Mechanicsburg ($1,020,815,501.44) and New Cumberland ($702,955,615.69).

[3] Removing depots not included in the sampling plan ($799,008,169), the total value of the sample universe was $7,807,342,615.

Appendix D. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense (Comptroller)
    Deputy Chief Financial Officer
    Deputy Comptroller (Program/Budget)
Deputy Under Secretary of Defense (Acquisition Reform)
Director, Defense Logistics Studies Information Exchange

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Assistant Secretary of the Army (Financial Management and Comptroller)
Auditor General, Department of the Army

Department of the Navy

Naval Inspector General
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Department of the Air Force

Assistant Secretary of the Air Force (Financial Management and Comptroller)
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House Committee on Armed Services
House Committee on Government Reform
House Subcommittee on Government Management, Information, and Technology, Committee on Government Reform
House Subcommittee on National Security, Veterans Affairs, and International Relations, Committee on Government Reform

Defense Logistics Agency Comments

DEFENSE LOGISTICS AGENCY
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IN REPLY
REFER TO

MAY 23 2000

MEMORANDUM FOR ASSISTANT INSPECTOR GENERAL FOR AUDITING
DEPARTMENT OF DEFENSE

SUBJECT: Procedures Used to Test the Dollar Accuracy of the Defense Logistics Agency Inventory, (Project No. OFJ- 2102.01)

We have reviewed the draft of the prepared audit report. Our comments are attached. Thank you for the opportunity to comment. Should you have further questions regarding this response, Mr. Timothy F. Soltis is our primary point of contact and can be contacted on 703-767-7235.

Linda J. Furiga

LINDA FURIGA
Comptroller

Subject: Procedures Used to Test the Dollar Accuracy of the Defense Logistics Agency Inventory, Project No. OFJ- 2102.01

Recommendations A. 1-6: (See pages 14-15)

A. In designing future sampling plans, we recommend that the Director, Defense Logistics Agency:

1. Include all Defense Logistics Agency-owned items stored at the depots in the sample universe and exclude Military-Department-owned items by:

   a. Obtaining the appropriate data files from the Defense Integrated Subsistence Management System about subsistence items stored at the depots.

   b. Including all Defense-Logistics-Agency-owned inventories.

   c. Using the ownership purpose codes in the Standard Automated Materiel Management System to distinguish Defense Logistics Agency-owned assets from Military-Department-owned assets.

DLA Comments:

A.1. Concur. DLA will revise its sampling methodology and corresponding sampling plan to include the appropriate Defense Integrated Subsistence Management System (DISMS) files. DLA will use a combination of SAMMS and DISMS items to select a sample of Distribution Standard System (DSS) warehoused inventory. In addition, DLA will use the ownership purpose (O/P) codes maintained in SAMMS to distinguish between DLA-owned and Military Department-owned assets.

Disposition: Actions are on-going. ECD: October 30, 2000.

2. Develop procedures to draw the inventory information used for sampling purposes from the year-end information that the Defense Finance and Accounting Services uses to prepare the financial statements. Reconcile the two sets of records and develop other procedures to ensure that the interface between Distribution Standard System and other Defense Logistics Agency logistics systems works correctly.

DLA Comments:

A.2. Concur. DLA will revise its sampling procedures to draw the universe of DLA-owned materiel used for sampling purposes from the year-end information that is provided to DFAS to prepare the financial statements. The Quantitative Location Reconciliation (QLR) policy schedule for DSS/SAMMS and DSS/DISMS reconciliations will be reviewed along with historical reconciliation results to determine what 'out-of-cycle' QLRs are necessary and achievable to support the overall CFO sampling plan.

Disposition: Actions are on-going. ECD: October 30, 2000.

3. Perform the following actions:

   a. Make the necessary arrangements to select and stratify the universe as of September 30 of the year under review and complete all sample counts in as short of period as feasible after that. Include the necessary year-end testing procedures to cover the interim period from year-end to the date of the last count.

DLA Comments:

A.3.a. Concur. DLA will make the necessary arrangements to select and stratify the September 30th universe as indicated in the response to recommendation A.2. The distribution depots will be requested to complete all sample counts in as short a period as feasible after sample items are released to the depots to perform counts. Interim year-end testing procedures will be established.

Disposition: Actions are on-going. ECD: October 30, 2000.

   b. Document the sample selection process and have an independent party observe and monitor the sample selection process.

   c. Using a 95-percent confidence level and a precision level of plus or minus 2.5 percent.

   d. Use the results of the FY 1999 and later samples to improve the design of future samples including refining the stratification of the Defense Logistics Agency universe and estimates of expected error rates in each stratum.

DLA Comments:

A.3.b- A.3.d. Concur. DLA will document the sample selection process and have the actual selection process observed and monitored by an independent party. The plan will use a 95-percent confidence interval and a target error bound of plus or minus 2.5 percent. Additionally, DLA will use the results of the FY 2000 sample to further improve the design and efficiency of future sampling plans. For the FY 2000 sample, DLA will change the definition of "measurable," by using on-hand balance and unit price as strata criteria rather than unit price and extended dollar value, and by using estimated strata errors extracted from the FY 1999 sampling plan.

Disposition: Actions are on-going. ECD: October 30, 2000.

4. Include procedures to validate pricing data by tracing prices from the logistics feeder systems to the appropriate procurement records.

DLA Comments:

A.4. Partially Concur. DLA agrees that the FY 1999 sampling plan was not designed to and therefore did not include procedures to test the accuracy of the pricing data in SAMMS. We will defer comments on planned actions to validate SAMMS pricing data until we see the results of the on-going audit being conducted by the DoDIG covering this issue.

Disposition: Actions are on-going. Estimated completion date will be determined within 60 days of receiving the DoDIG audit reports.

5. Consolidate, to the extent possible, the materiel located outside the distribution depots into the depots.

DLA Comments:

A.5. Partially Concur with intent. DLA will position its materiel in the depots to the maximum extent possible and consistent with the DLA logistics support goal. However, the DLA goal is to "take direct material support to the warfighter." To achieve this goal, DLA will be required to position DLA-owned assets at numerous sites worldwide, many of which are outside of the DSS depots.

Disposition: Actions are on-going and continuous.

6. Expand the sampling procedures or develop other procedures to validate the accuracy of the inventory records for Defense Logistics Agency-owned materiel and fuels stored at storage organizations that do not use the Distribution Standard System.

DLA Comments:

A.6. Partially concur. DLA relies on the controls established by the organizations that store DLA-owned materiel. However, DLA will validate the existing inventory procedures at non-DSS sites to determine if additional procedures are required. DLA chooses not to use statistical sampling plan to include DLA-owned fuels and materiel stored outside the distribution depots. DLA has the capability to obtain 100-percent fuel inventories at all fuel sites at year-end and will rely on existing processes and controls to obtain year-end balances.

Disposition: Actions are on-going. ECD: October 30, 2000.

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Recommendations B.1-B.2: (See page 22)

B. We recommend that the Director, Defense Logistics Agency:

1. Establish an oversight mechanism that requires that personnel, who are independent of depot operations, observe the physical counts for sample items and monitor the results through the sample projection.

DLA Comments:

B.1. Partially Concur. DLA believes that the actions already taken in response to the GAO Report GAO/AIMD-99-132, "Financial Management: Better Controls Essential to Improve the Reliability of DoD's Depot Inventory Records," June 28, 1999 (GAO Code 919336), are sufficient. DLA established policy to ensure that different individuals would perform counts than count entry. DLA requested that DoD change the separation of duty policy currently in the DoD 4140.1-R (Material Management Regulation) to state that "although multi-skilled personnel may conduct physical counts, the inventory organization must enter counts, apply infloat controls and conduct preadjustment research." DLA also implemented system changes to ensure "blind-counts" are conducted on all physical inventory counts. DLA will rely on its independent auditors to observe and monitor count procedures.

Disposition: Actions are complete.

2. Fully document the sample count and summary procedures and include the documentation as part of the sampling plan. Specifically, the plan should adequately document the actions that depot personnel must take to:

a. Conduct physical counts only with independent personnel present;

DLA Comments:

B.2.a. Concur. Depot personnel will perform "blind counts" using the procedures outlined in recommendation B.1. Although the depots used warehouse personnel to perform 1st and 2nd counts, all 3rd counts, count entry, and adjustments to the record are performed by personnel not involved in receipt/issue processes (e.g., inventory organization personnel, decentralized inventory support personnel, etc.). DLA will continue to accommodate auditor site visits to observe inventory counts.

Disposition: Actions are complete.

b. Validate the condition codes in the Distribution Standard System;

DLA Comments:

B.2.b. Concur. Procedures are already in place that require the counter, during any physical inventory (including CFO sample inventories) to compare item data displayed on the DSS RF device (or DSS "PE4Y" listing in non-RF environment) with the condition marked on the item and take appropriate action to correct any condition code inconsistencies. In addition, during the receiving process, DLA verifies each asset's "Kind, Count, and Condition," but technical inspection is neither required, nor performed.

Disposition: Action is complete.

c. Address in-float transactions;

DLA Comments:

B.2.c. Concur. Procedures and documentation are already in place to address in-float transactions. In an RF-environment, DSS logic automatically considers "in-float" transactions, such as rewarehousing. At those few warehouses and/or sites that don't operate in a RF environment, the inventory researcher manually considers in-float transactions based on the DSS Inventory Users Manual guidance. The DDC also disseminated a memorandum to all Defense Distribution Depots, to reemphasize the importance of using on-line rewarehousing tools in DSS.

Disposition: Action is complete.

d. Report observed count variances before making adjustments for previously reported adjustments

DLA Comments:

B.2.d. Concur. DLA issued policy specific to sample inventory research in its December 11, 1997 memorandum and reiterated it in subsequent e-mails dated April 22, 1999. The policy memorandum articulated the definitions of postcount validation and preadjustment research, contrasted to "causative research." The memorandum was consistent with definitions contained in DoD 4000.25-2-M, Military Standard Transaction Reporting and Accounting Procedures (MILSTRAP) (Chapter 7), as amended by Approved MILSTRAP Change Letter (AMCL) 8A. DLA will not perform causative research during the preadjustment phase when conducting a sample inventory. DLA will reissue a policy reiterating this guidance.

Disposition: Actions are ongoing. ECD: June 30, 2000

e. Report the results of all sample counts and include them in the sample estimate.

DLA Comments:

B.2.e. Concur. This draft report indicated that sample results weren't initially reported for 111 NSNs from the 1999 sample. The DDC worked with DORRA to ensure many initially excluded were included in the final statistics. Additionally, program changes were requested (DSS Program Trouble Report (PTR) 0010043) to resolve how zero balance verifications are handled and reported. For the FY 2000 sample, DLA will ensure that all sample items selected are counted and reported.

Disposition: Actions are on-going. ECD: October 30, 2000

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